

the versatility feature of the VRCM task, the VRCM identifies the application by initially registering a corresponding identifier. One example for enabling identification of the application to the user is by providing an icon for each application on the integrated display 150. When the user switches between applications after the soft-keys have been configured, the corresponding application icon can be selected for identifying the associated application to the VRCM task. Subsequently, key selections can proceed as usual.

[0038] It will be appreciated that the user can map the fixed keys 152 of the versatile remote control unit 144 using the user's television or other display devices known in the art connected to the video/audio output 119 of the set-top terminal 100 in the same manner as the mapping of the soft keys displayed on the integrated display 150. The user's television can be used as a visual aid to facilitate the key re-mapping configuration function of the VRCM task. Once the configuration is complete, the user may perform the same procedure for configuring another application, and so on. The application, in conjunction with the VRCM task, has the ability to graphically show the mapping for each key by displaying the corresponding function associated with the application via a remote control image on the user's television. The remote control image can be accessible on the user's television any time the user needs to double-check the mapping of the function for each remapped key.

[0039] Alternatively in the second case, the user's television may show multiple icons, where one icon represents a single application. Once an icon is selected, the image on the user's television is updated to show the keys associated with that selected application represented by the selected icon. The user may alternate

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between the applications once all keys for all of the user-selected applications have been configured (one time configuration). Any time the user subsequently selects the application, and if the versatile remote control feature is turned on, then the VRCM is utilized to facilitate use of the re-mapping function.

[0040] Once the remapping configuration has been done for any selected application, normal use of the VRC 144 can commence in accordance with the following steps:

[0041]

1. The user selects the application icon.
2. The user selects a given key associated with the application (soft key if the VRC 144 has the integrated display 150, otherwise a fixed key 152 that may represent the remapped key or indicate the corresponding icon on the user's television.
3. The VRCM associates the selected soft key with the selected application and forwards or conveys the selected soft key code to the application associated with the selected icon (in step 1), and uses the selected key code to determine whether the user wants to make another selection for the same application, then step 3 is repeated, or if the user wants to make a selection for another application, then steps 1-3 are repeated.

[0042] As described above, the VRCM comprising a set or group of software and application programming interface (API) routines resident in the set-top terminal 100 that are accessed by using one or more key of the VRC 144. When a user performs a keystroke of the VRC 144, the selected application remaps a corresponding function for the key to enable the user to map a variety of functions for each application using one or more keys of the VRC 144.

[0043] It should be known to those skilled in the art that this invention equally applies to any consumer device that may benefit from this capability, not just a set-top terminal device, and to any hand held device, not just a remote controller with or without an integrated touch screen display.

[0044] While the invention has been specifically described in connection with certain example embodiments thereof, it is to be understood that this is by way of illustration and not of limitation. The preceding description is intended to enable others skilled in the art to best utilize the invention in various embodiments and with various modifications as are suited to the particular use contemplated. It is intended that the scope of the invention be defined by the following claims.

## CLAIMS